Bluetooth Remote Control Unit
DSR-0828
User Manual

1. Overview

This product contains 17 function buttons. The plastic shell is used as the outer frame of the product, which improves the appearance and feel of the product. The buttons are designed with metaldome, so that the life of the keys can reach 1 million times. There are two LEDs (Blue & Red) to show the RC modes.

Also two are backlighted keys: MUTE key is red, and TEAMS key is blue(The button screen is transparent and the blue and red LED lights are below the button).

2*AAA battery as the power supply. Product supports OTA function.

1.1 Parameter

- RF frequency：2402 ~ 2480 MHz
- Protocol: Bluetooth 4.2 (Bluetooth low energy)
- TX power：<0dBm
- maximum transmission rate：1 Mbps
- Operate distance：>10m
- Working voltage: 2.4V~3.6VDC
- Static current （connection）：<60uA
- Sleep current (not paired)：<25uA
- Working current（key press）：<12mA
- RF protocol: BLE4.2
- Frequency carrier deviation：±30KHz
- Antenna：onboard antenna
- Certification：CE ,FCC ,etc
- Battery: 2*AAA battery

2.1 LED indicating status

Press the button	The blue light flashes
Pairing mode	The blue light flashes
Pair successfully	The blue light stays on 1.5s and then goes off
Loss connection	The blue light flashes 5s and then off
Low voltage	The red light flashes 5s and then off

2.2 OTA

To support OTA, install the apk "VoiceBLEOTA_1.2.1" in the android mobile phone and then pair the RCU with the mobile phone. Complete OTA upgrade according to instructions.

Otherwise, if the far unit integrates the OTA codes, the RCU can be upgraded via Bluetooth.

2.3 Low voltage indication

1. When the battery voltage is lower than 2.4v, a low voltage indication code (**0xAE**) will be transmitted following each pressed key(RC should send the key code firstly). Also, the red LED indicator will flash for 5 times (f=1Hz, duty=0.1).
2. Once the battery is OK (>2.4V), the RCU will stop sending the battery low code after each pressed key.

2.4 Key value

2.4.1 Bluetooth code
VID=1D5A   PID=C080

Key	Description	HID	TYPE	Remarks	Icon

		Code			
On/Off	Toggles On/Off the far unit	0x66	Keyboard	Infrared code values are sent when lose pair or have no pairing information; Bluetooth code are sent when paired	⏻
Camera	Turn On/Off far camera	0XB6	Keyboard	•Short press – activates/deactivates the Camera Control Mode. •Long press – turn On/Off far camera. The remote control will send the code value after pressing the button, and the code value of 0x00 will be sent after releasing. Far Unit is required to determine whether it is short press or long Press according to the time it receives the key value of 0x00	⬒
Mute	Mute/Unmute the far unit Microphone	0x7F	Keyboard	Red LED: this illumination turns on or off only upon receiving MUTE On or MUTE Off code from the far unit.	🎤
Call	Start or receive a call	0xB3	Keyboard		📞
End Call	End a call	0xB2	Keyboard		☎
Volume up	Increase speaker volume	0x80	Keyboard	Upon long press it keeps transmitting the key code.	+
Volume down	Decrease speaker volume	0X81	Keyboard	Upon long press it keeps transmitting the key code.	—
Up	Up direction navigation	0x52	Keyboard	Upon long press it keeps transmitting the key code.	^
Down	Down direction Navigation	0x51	Keyboard	Upon long press it keeps transmitting the key code.	∨
Left	Left direction Navigation	0x50	Keyboard	Upon long press it keeps transmitting the key code.	<
Right	Right direction Navigation	0x4F	Keyboard	Upon long press it keeps transmitting the key code.	>
OK	Enter/Accept key	0x96	Keyboard		OK
Back	Back key	0xF1	Keyboard		↺
TEAMS	TEAMS button	0XB5	Keyboard	Blue LED :this illumination turns on or off only upon receiving TEAMS On or TEAMS Off code from the far unit.	📲
Menu	Display the menu options	0x76	Keyboard		☰
Home	Back to main home screen	0x223	Consumer Keyboard		⌂
Hold/resume	Put an active call into a Hold state	0XB4	Keyboard		⏭

2.4.2 IR code

Only the power key should send IR code. For this version of RCU the IR LED is only hardware preparation for future SW support.

2.5 Keep alive

2.6.1 After pairing complete, the RCU will transmit every second a keep alive signal (code) to the far unit.

2.6.2 when RC disconnected with host(RC still have pairing information), RC should send reconnection ADV per 10 second,last for 500ms

2.6Appearance
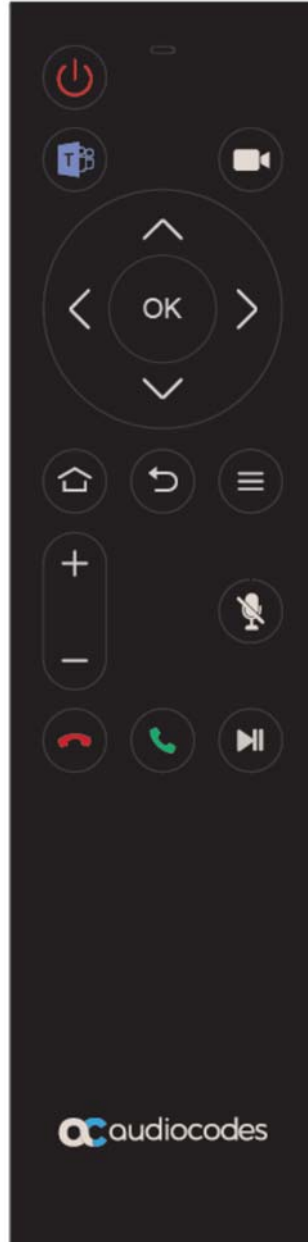
FCC Warning Statement

Changes or modifications not expressly approved by the party responsible for compliance could
void the user's authority to operate the equipment.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
-Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.